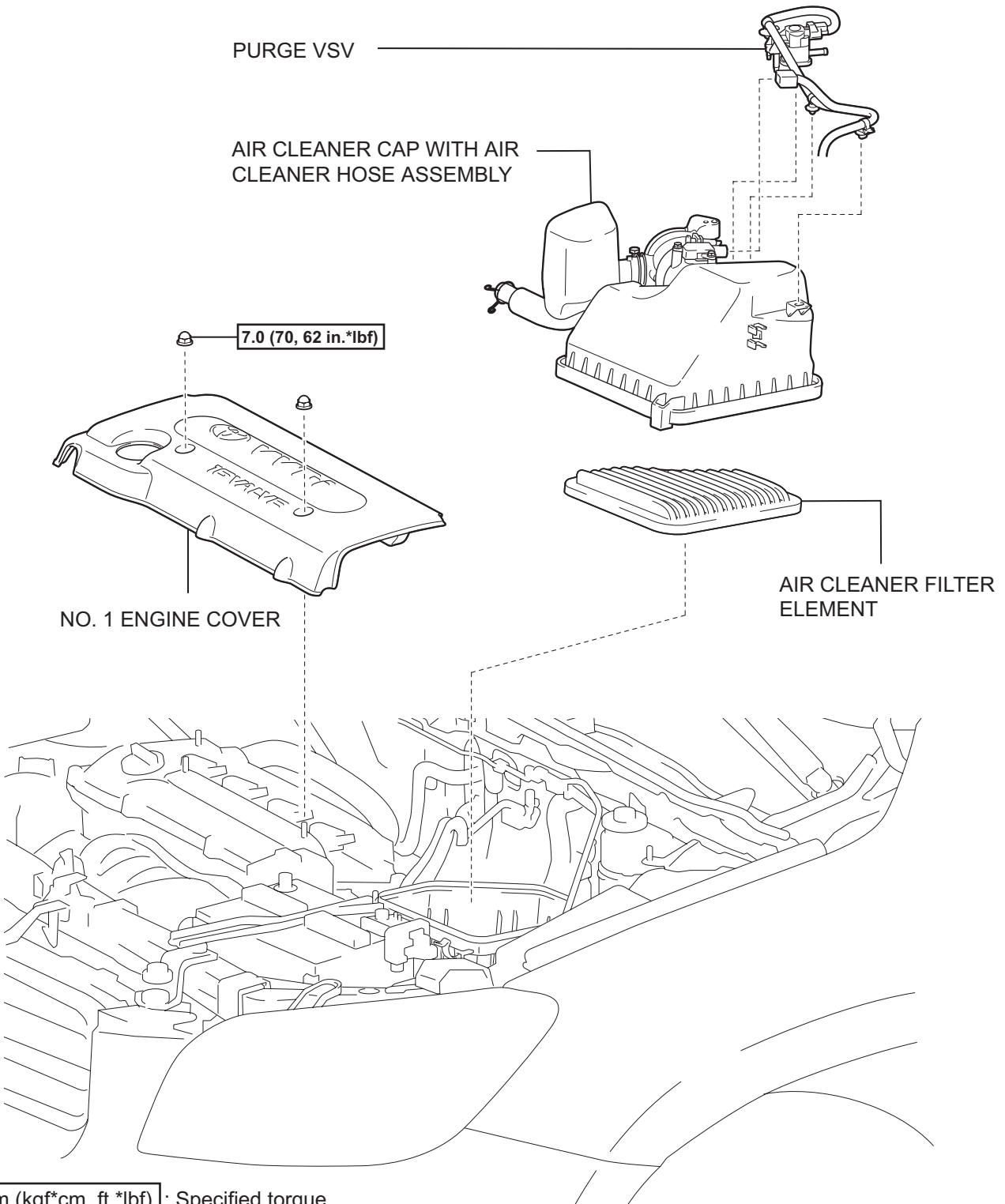
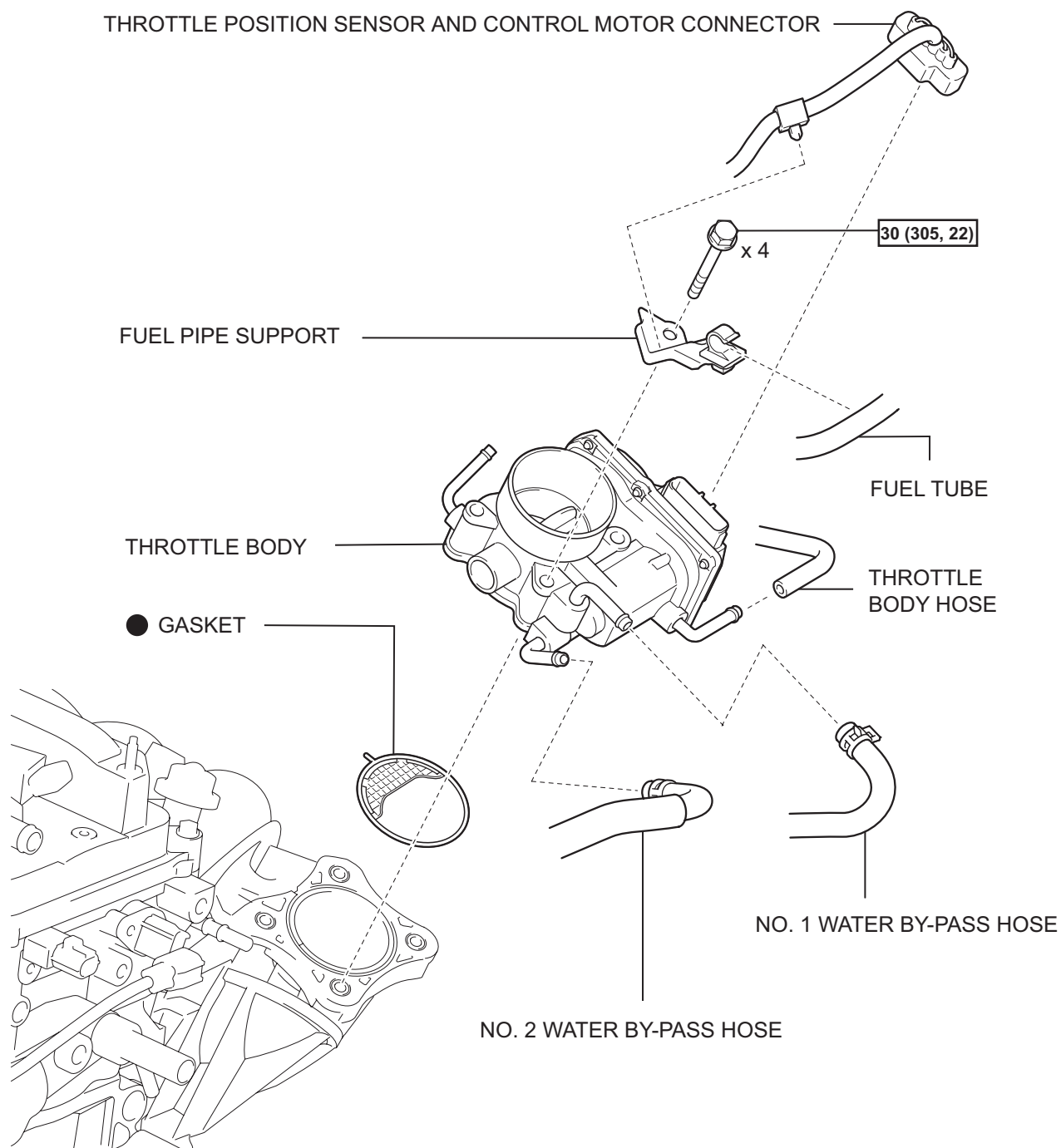


THROTTLE BODY

COMPONENTS



N*m (kgf*cm, ft.*lbf) : Specified torque



N*m (kgf*cm, ft.*lbf) : Specified torque

● Non-reusable part

ON-VEHICLE INSPECTION

1. CHECK THROTTLE BODY

- (a) Check the throttle control motor operating sounds.
 - (1) Turn the ignition switch ON.
 - (2) When pressing the accelerator pedal, check the operating sound of the running motor. Make sure that no friction noises emit from the motor. If friction noise exists, replace the throttle body.

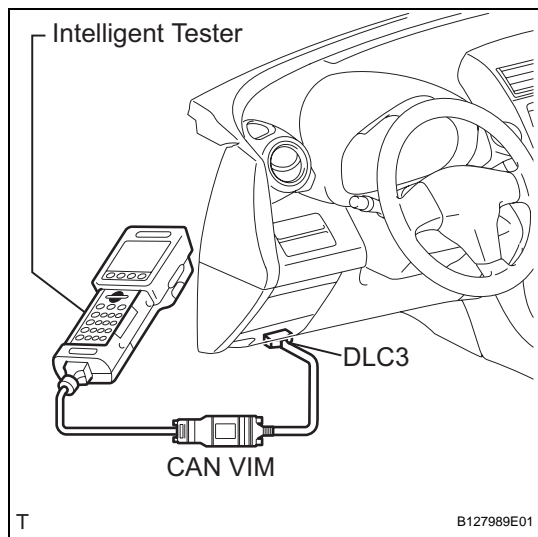
- (b) Check the throttle position sensor.
 - (1) Connect the intelligent tester to the DLC3.
 - (2) Turn the ignition switch ON.
 - (3) Push the intelligent tester main switch ON.
 - (4) Enter the following menus: DIAGNOSIS / ENHANCED OBD II / DATA LIST / THROTTLE POS.
 - (5) Depress the accelerator pedal. When the throttle valve is fully opened, check that the value of "THROTTLE POS" is within the specification.

Standard throttle valve opening percentage:
60% or more

NOTICE:

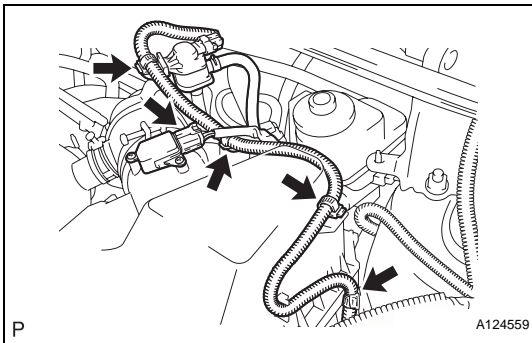
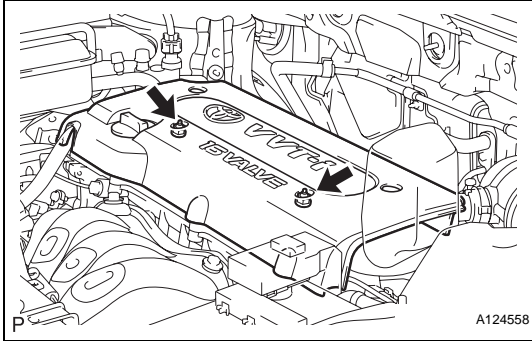
When checking the standard throttle valve opening percentage, the shift lever should be in the N position.

If the percentage is less than 60%, replace the throttle body.

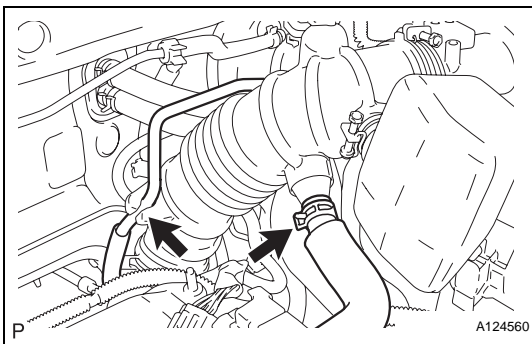


REMOVAL

1. DRAIN ENGINE COOLANT (See page [CO-6](#))
2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL
CAUTION:
Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.
3. REMOVE NO. 1 ENGINE COVER
 - (a) Remove the 2 nuts and engine cover.

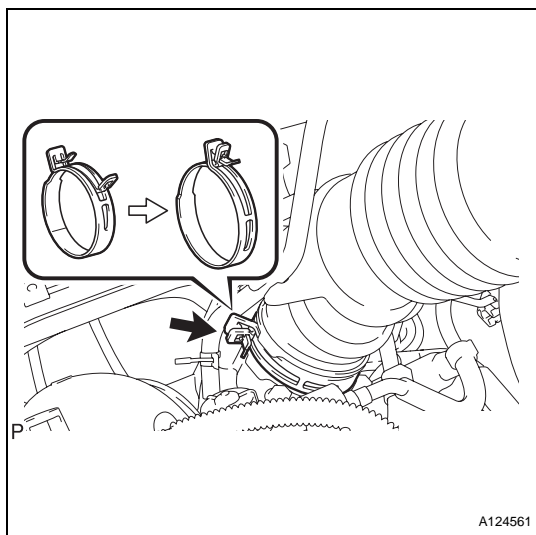


4. REMOVE AIR CLEANER CAP
 - (a) Disconnect the mass air flow meter connector.
 - (b) Disconnect the purge VSV connector.
 - (c) Disconnect the 4 wire harness clamps.

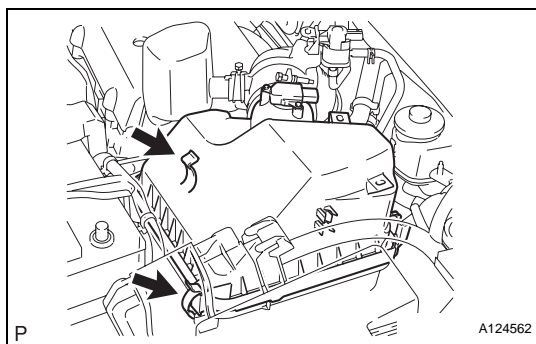


- (d) Disconnect the No. 2 ventilation hose from the air cleaner hose.
- (e) Disconnect the purge line hose from the clamp.

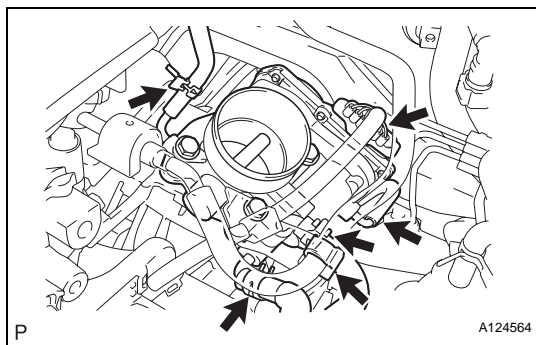
ES



- (f) Lock the No. 1 air cleaner hose clamp, and then disconnect the No. 1 air cleaner hose from the throttle body.

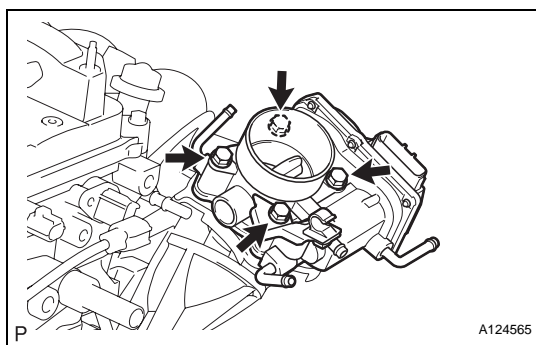


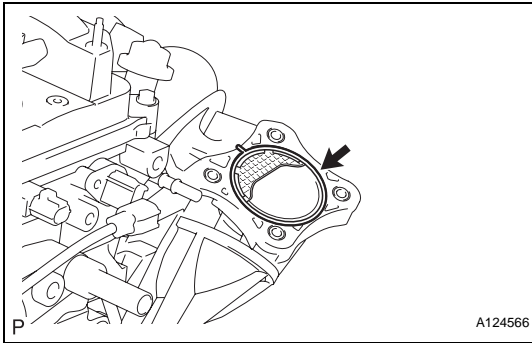
- (g) Unfasten the 2 hook clamps, and then remove the air cleaner cap.
(h) Remove the air cleaner filter element from the air cleaner case.



5. REMOVE THROTTLE BODY

- (a) Disconnect the purge line hose from the throttle body.
(b) Disconnect the water by-pass hose from the throttle body.
(c) Disconnect the No. 2 water by-pass hose from the throttle body.
(d) Disconnect the No. 1 throttle body hose from the throttle body.
(e) Disconnect the throttle position sensor and control motor connector.
(f) Disconnect the wire harness clamp.
(g) Disconnect the fuel tube from the clamp.
(h) Remove the 4 bolts, and then remove the fuel pipe support and throttle body.





- (i) Remove the gasket from the intake manifold.

INSPECTION

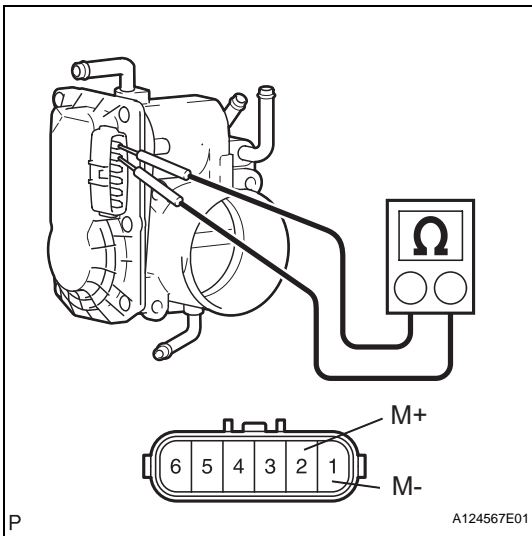
1. INSPECT THROTTLE BODY

- (a) Measure the resistance of the throttle control motor.

Standard resistance

Tester Connection	Specified Condition
1 (M-) - 2 (M+)	0.3 to 100 Ω at 20°C (68°F)

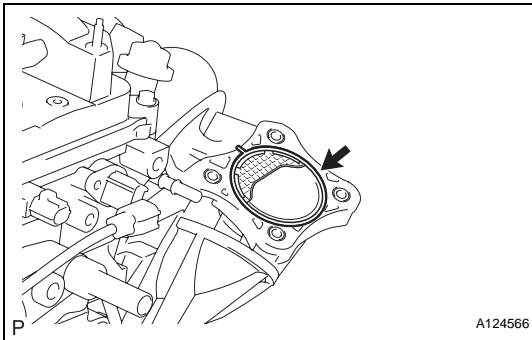
If the result is not as specified, replace the throttle body.



INSTALLATION

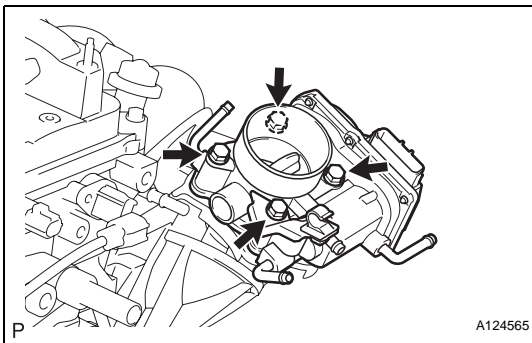
1. INSTALL THROTTLE BODY

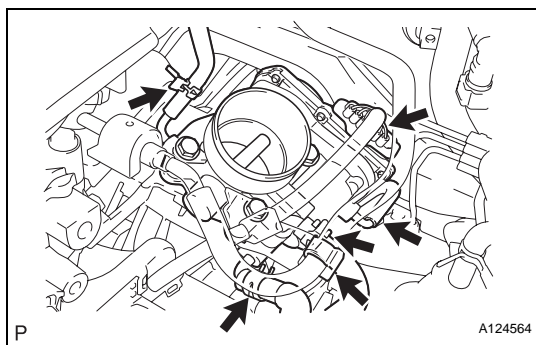
- (a) Install a new gasket onto the intake manifold.



- (b) Install the throttle body and fuel pipe clamp with the 4 bolts.

Torque: 30 N*m (305 kgf*cm, 22 ft.*lbf)

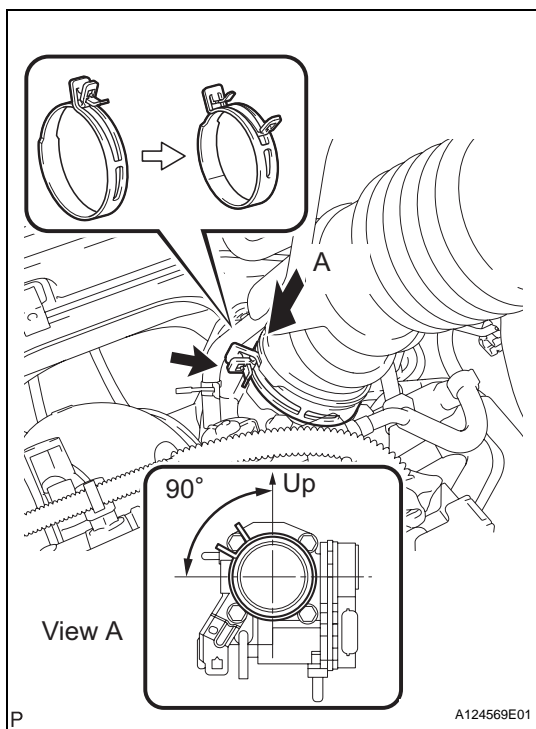
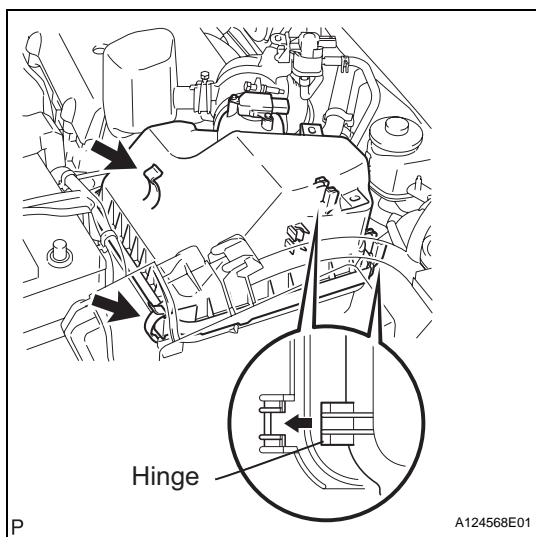




- (c) Connect the fuel tube into the clamp.
- (d) Connect the wire harness clamp.
- (e) Connect the throttle position sensor and control motor connector.
- (f) Connect the No. 1 throttle body hose to the throttle body.
- (g) Connect the No. 2 water by-pass hose to the throttle body.
- (h) Connect the water by-pass hose to the throttle body.
- (i) Connect the purge line hose to the throttle body.

2. INSTALL AIR CLEANER CAP

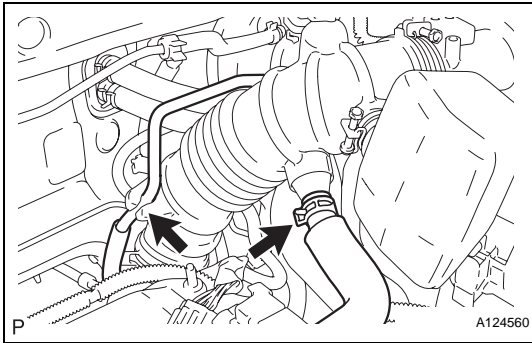
- (a) Install the air cleaner filter element onto the air cleaner case.
- (b) Insert the hinge part of the air cleaner cap into the air cleaner case, then hang the 2 hook clamps.



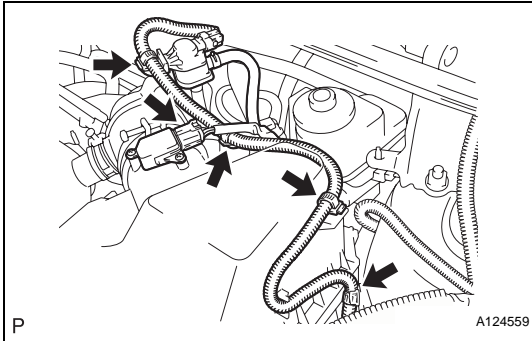
- (c) Align the matchmarks of the No. 1 air cleaner hose and throttle body, and then connect the air cleaner hose No. 1 to the throttle body and unfasten the No. 1 air cleaner hose clamp.

NOTICE:

Make sure that the hose clamp is at the correct angle.



- (d) Connect the purge line hose to the clamp.
- (e) Connect the No. 2 ventilation hose to the air cleaner hose.

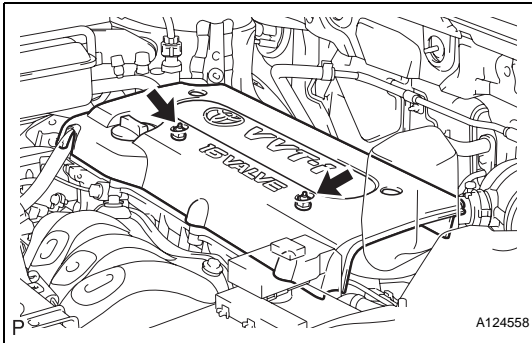


- (f) Install the 4 wire harness clamps.
- (g) Connect the mass air flow meter connector.

3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

4. ADD ENGINE COOLANT (See page [CO-6](#))

5. CHECK FOR ENGINE COOLANT LEAKAGE (See page [CO-1](#))



6. INSTALL NO. 1 ENGINE COVER

- (a) Install the cover with the 2 nuts.
Torque: 7.0 N*m (71 kgf*cm, 62 in.*lbf)